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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,515	06/03/2005	Eugene Shteyn	US02 0469 US	4659

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EXAMINER

PENDLETON, BRIAN T

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/537,515	Applicant(s) SHTEYN ET AL.	
	Examiner Brian T. Pendleton	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 7-13, 16, 18, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Aarts, US Patent 6,829,361. In figure 4, Aarts discloses a sound reproduction system comprising a plurality of loudspeakers PL1, PL2; audio detectors (microphones) 6,7; and regulation means 10 for determining a set of compensation factors based on the differences between the first audio signals to the loudspeakers and the second audio signals from the audio detectors 6, 7. The compensation facts are stored in filters 8 and 9. Claims 1 and 9 are rejected. Regarding claims 2, 3, 5, 10, 11, and 16, the headphone system reads on the claimed limitations. As to claims 7, 13, and 18, Aarts discloses that filters 8 and 9 use transfer functions to simulate an external sound source using headphones, therefore one of the compensation factors is inherently amplitude. Regarding claims 8 and 19, column 9 lines 5-13 teach that compensation factors can be used to reproduce the sound of different sound environments, which reads on independent sound effects. As to claim 12, the system has compensation factors for each sound source in a multiple source embodiment (see figure 5) and compensation factors for different positions of the user (see column 7 line 56 – column 8 line 15).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aarts.

Aarts does not disclose providing a set of compensation factors to a purchaser of the headphone device (or via a commercial transaction). Examiner takes Official Notice that it was well known at the time of invention to sell customized audio products, such as microphones, stereo systems, headphones. The benefit of customization was to create an optimal listening environment for the user. It would have been obvious to one of ordinary skill in the art at the time of invention to sell the headphones with customization so that an user could reproduce the optimal listening environment anywhere.

Claims 14, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aarts in view of Slaney, US Patent Application Publication 2006/0067548 . Aarts does not disclose that a three-dimensional ambience is imparted to the audio signals output from the loudspeakers. Slaney discloses a method and apparatus for estimating head related transfer functions in three-dimensional audio comprising sound source 10, head related transfer function processor 12, speakers 14 (which can be in headphones) and estimator 18. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Aarts to have a head related three-dimensional transfer function processor, as taught by Slaney, for the purpose of improving the realism of audio reproduction.

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Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aarts in view of Bourk, US Patent 5,182,774. Aarts does not disclose a sound cancellation effect. Bourk discloses a headphone with a microphone and sound cancellation circuitry. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Aarts to include the sound cancellation circuitry of Bourk for the purpose of improving the audio quality.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (571) 272-7527. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

btp

Brian T. Pendleton
Primary Examiner
Art Unit 2615

